Title (en)

FAULT DETECTION IN A THERMAL SENSOR DEVICE

Title (de)

FEHLERERKENNUNG IN EINEM THERMISCHEN SENSORGERÄT

Title (fr)

DÉTECTION D'UNE ERREURE DANS UN CAPTEUR THERMIQUE

Publication

EP 4009008 B1 20240131 (EN)

Application

EP 20211460 A 20201203

Priority

EP 20211460 A 20201203

Abstract (en)

[origin: EP4009008A1] A thermal sensor device is configured to determine a fluid parameter of a fluid based on the heat transfer behavior of the fluid. The sensor device comprises one or more heaters and means for determining a response of the sensor device to heater power being supplied to the heaters. For detecting sensor faults, the sensor device is operated in two different modes of operation. First and second values (c_{static}, c_{dynamic}) of the same fluid parameter are determined in the two modes. A fault indicator value (F) is derived by comparing the first and second values. The first mode of operation may be a steady-state mode, the first value (c_{static}) being based on a steady-state response of the sensor device to heater power being supplied to the heaters, and the second mode of operation may be a dynamic mode, the second value (c_{static}) being based on a transient response.

IPC 8 full level

G01F 25/10 (2022.01); **G01F 1/692** (2006.01); **G01F 1/696** (2006.01)

CPC (source: CN EP KR US)

G01F 1/696 (2013.01 - EP); **G01F 25/10** (2022.01 - EP); **G01K 15/007** (2013.01 - US); **G01K 17/06** (2013.01 - KR); **G01K 19/00** (2013.01 - KR); **G01N 25/00** (2013.01 - US); **G01N 25/005** (2013.01 - US); **G01N 25/18** (2013.01 - US); **G01N 25/20** (2013.01 - CN KR US); G01F 1/692 (2013.01 - EP)

Citation (examination)

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Designated contracting state (EPC)

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DOCDB simple family (application)

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